

ABSTRACT

A plasma generation apparatus includes a cylindrical power electrode, a dielectric layer cover the circumference of the power electrode, an auxiliary plasma (AP) earth electrode, a gas flow portion for providing a reaction gas, and a power controller controlling RF power supplied to the power electrode, and auxiliary plasma is maintained between the power electrode and the AP earth electrode while the apparatus operates. The apparatus can generate plasma at low temperature under atmospheric pressure and provide stable plasma using auxiliary plasma. Particularly, even if high-frequency power whose power supply is not stable is used, auxiliary plasma functions as stable plasma source, thereby generating glow plasma uniformly applied to wide area.